Amendments To The Claims:

1. (Currently Amended) A stent cut from a tube, the stent being a self-expanding stent having an as cut state, a contracted state and an expanded state, wherein the stent is expandable from its contracted state to its expanded state, the stent being designed for catheter delivery to a target neurovascular site via a tortuous path in its contracted state, and deployment at the target site in its expanded state, comprising

a plurality of expandable tubular members, each member being composed of a continuous wire element forming a plurality of wave segments, each wave segment containing a pair of opposite looped peaks and adjacent sides and having a wave shape, such that, in the stent's expanded state, the distance between adjacent sides of a wave segment on proceeding from a peak toward opposite peaks, increases monotonically with an inflection point therebetween, and, in the stent's contracted state, ~~the distance between adjacent sides of a wave a minimum at a point intermediate opposite peaks, such that~~ the distance between adjacent sides of ~~the~~ a wave segment decreases along a portion of the segment to a minimum and thereafter increases along a portion of the segment, ~~points between the point intermediate opposite peaks and each of the opposite peaks is greater that of the point intermediate opposite peaks,~~ and

axial connectors joining one or more confronting peaks of adjacent tubular members, the axial connectors being portions of the continuous wire element,

wherein radial expansion of the stent from its contracted to its expanded state is accommodated by movement of adjacent wave-segment peaks away from one another, without significant change in the axial dimension of the stent.

2. (Original) The stent of claim 1, wherein the wire elements are formed of a NiTi shape memory alloy, and said radial expansion is achieved by releasing the stent from such catheter.

3. (Original) The stent of claim 2, which has a stress-induced martensite phase at body temperature.

4. (Previously presented) The stent of claim 2, which has an austenite phase transition temperature below body temperature.

5. (Previously Presented) The stent of claim 1, wherein the axial connectors connecting adjacent tubular members are attached to confronting peaks of the adjacent members, and the axial connectors are spaced from one another by intervening, unconnected confronting peaks.

6. (Original) The stent of claim 5, which can be carried in a distal end region of a catheter having a lumen inner diameter between about 0.5 and 2 mm, and adapted to be placed at the target site via a tortuous vascular path in the brain.

7. (Previously presented) The stent of claim 1, wherein the stent in its contracted state has an inner diameter of between 0.5 and 2 mm, and the stent diameter in its expanded state is between 2-9 times that in its contracted state.

8. (Original) A system for treating a aneurysm or other vascular abnormality in a neurovascular target vessel having an inner diameter less than about 8 mm and accessible via a tortuous vascular path, comprising

a guide wire that can be deployed at the target site,

a catheter having a lumen inner diameter of 0.5 to 2 mm and a distal end region in the lumen, and adapted to be placed at the target site via such path,

the stent of claim 1 adapted to be carried in its contracted state within the catheter's distal end region, where the catheter and stent carried therein are adapted to be moved axially along the guide wire, for placing the catheter at the target site, and

a pusher wire movable through the catheter, for forcing the stent out of the catheter into the vascular site, where stent radial expansion to its expanded state is effective to lodge the stent at the target site.

9. (Original) The system of claim 8, wherein the stent wire elements are formed of a NiTi shape memory alloy, and said radial expansion is achieved by releasing the stent from such catheter.

10. (Original) The system of claim 9, wherein the stent is held in its contracted state in a stress-induced martensite state.

11. (Original) The system of claim 8, which further includes a stabilizer attached to the distal end of the pusher wire, engageable with the stent when forcing the same from the catheter.

12. (Previously presented) The system of claim 8, wherein the stent in its contracted state has an inner diameter of between 0.5 and 2 mm, and a diameter in the expanded state of between 2-9 times that in the contracted state.

13. (Currently Amended) A method of treating an aneurysm or other vascular abnormality in a neurovascular target vessel having an inner diameter less than about 8 mm and accessible via a

tortuous vascular path, comprising

navigating a guide wire to the target site,

moving over the guide wire, a catheter having a lumen inner diameter of 0.5 to 2 mm and a distal end region in the lumen, and a stent carried in a contracted state within the catheter's distal end region, until the catheter distal end is located at the target site, said stent being cut from a tube, the stent being a self-expanding stent having an as cut state, an expanded state and a contracted state, wherein the stent is expandable from its contracted state to its expanded state, and being formed of (i) a plurality of expandable tubular members, each member being composed of a continuous wire element forming a plurality of wave segments, each segment containing a pair of opposite looped peaks and having a wave shape such that, in the stent's expanded state, the distance between adjacent sides of a wave segment on proceeding from a peak toward opposite peaks, increases monotonically with an inflection point therebetween, and, in the stent's contracted state, the distance between adjacent sides of a wave segment decreases along a portion of the segment to a minimum and thereafter increases along a portion of the segment, ~~is a minimum at a point intermediate opposite peaks, such that the distance between adjacent sides of the wave at points between the point intermediate opposite peaks and each of the opposite peaks is greater than that of the point intermediate opposite peaks,~~ and (ii) axial connectors joining adjacent tubular members, and radial expansion of the stent from its contracted to its expanded state is accommodated by movement of adjacent wave-segment peaks away from one another, without significant change in the axial dimension of the stent,

replacing the guide wire with a pusher wire, and

using the pusher wire to force the stent out of the catheter into the vascular site, where stent radial expansion to its expanded state is effective to lodge the stent at the target site.

14. (Original) The method of claim 13, wherein the stent wire elements are formed of a NiTi shape memory alloy, and said radial expansion is achieved by releasing the stent from such catheter.

15. (Original) The method of claim 14, wherein the stent is held in its contracted state in a stress-induced martensite state.

16. (Original) The method of claim 13, wherein the pusher wire is equipped at its distal end with a stabilizer that is engageable with the stent when forcing the same from the catheter.

17. (Previously presented) The method of claim 13, wherein the stent in its contracted state has an inner diameter of between 0.5 and 2 mm, and a diameter in the expanded state of between 2-9 times that in the contracted state.

18. (Previously presented) The system of claim 1, wherein, in the stent's contracted state, the sides have at least two inflection points.

19. (Previously presented) The system of claim13, wherein, in the stent's contracted state, the sides have at least two inflection points.